CLAIMS

1) A roller cleaning system (10) for an oven (20) equipped with a series of motorized rollers (21) each of which is in turn connected to a relative motor-reducer (24) for rotation activation, in turn connected to a relative frequency converter (25) driven by a respective control and activation device (26), said roller cleaning system (10) comprising a control and regulation unit (14) to independently control the rotation rate and direction of each roller of the series of motorized rollers (21) for the advancing of one or more flat blooms (40) and for cleaning at least one roller (34) causing the detachment of the flakes of oxide therefrom by scraping it against a flat bloom (40) with a variation in the rotation rate and/or direction of the same.

2) The roller cleaning system (10) according to claim 1, characterized in that it comprises a field bus (12) which connects said control and regulation unit (14) to each control and activation device (26).

3) A roller cleaning process of a roller oven comprising a series of rollers (21) of which a group of rollers (22) is connected to a flat bloom (40) or similar steel structure, the rotation of each roller (21) can be activated independently of the remaining rollers of the series of rollers (21) by means of activation devices,

characterized in that said roller cleaning process comprises the following phases:

- a) activating the rotation of at least one roller (34) of the at least one group of rollers (22) with a module and/or direction rate which is such as to cause the scraping of at least one roller (34) against the flat bloom (40) so as to remove the flakes of oxide from the at least one roller (34).

4) The roller cleaning process according to claim 3, characterized in that phase a) comprises the following phases:

- activating the rotation of at least one roller of the head group of rollers (32) with a rotation direction which opposes the advancing of the flat bloom (40) towards the rolling mill (60);

- activating the rotation of the remaining rollers of the group of rollers (22) in contact with the flat bloom (40) with a rotation rate which is such as to cause the advancing of the flat bloom (40) in the direction (F) with a lower module rate than that of the at least one roller (34).

5) The roller cleaning process according to claim 3, characterized in that said series of rollers (21) comprises a group of rollers (22) in contact with said flat bloom (40), in turn comprising a group of head

rollers (32), a group of tail rollers (31) and a group of central rollers (33), and in that said phase a) comprises the following phases:

- b) activating the rotation of the group of head rollers (32) with a rotation rate which is such as to allow the flat bloom (40) to advance in the direction (F);
- c) activating the rotation of the group of tail rollers (31) and the group of central rollers (33) with a lower module rate than that of the group of head rollers (32) and with the same rotation direction:

6) The roller cleaning process according to claim 5, characterized in that phase c) of the cleaning process envisages:

- activating the group of central rollers (33) and the group of tail rollers (31) with the same module and direction rotation rate.

7) The roller cleaning process according to claim 5, characterized in that phase c) of the cleaning process envisages:

- activating the group of central rollers (33) with a lower module rate than that of the group of head rollers (32);
- activating the group of tail rollers (31) with a lower module rate than that of the group of central rollers (33).